

REMARKS/ARGUMENTS

Claims 1-36 stand rejected in the outstanding Official Action. Claims 1, 3, 4, 13-15, 19-25, 27-29, 31, 33, 35 and 36 have been amended and therefore claims 1-36 remain in this application.

The Examiner's acknowledgment of the acceptance of Applicants' originally submitted formal drawings is very much appreciated. Additionally, the Examiner's consideration of the prior art submitted with Applicants' Information Disclosure Statement is appreciated. It is noted that the application has been preliminarily amended to recite priority of this CIP application from the parent application and this priority is reflected in the formal filing receipt.

The Examiner objects to the abstract as not being written in a single paragraph form. Applicants have reformatted the abstract so as to be in a single paragraph format, and it is noted that the number of words in the paragraph fall within the 150 word limit. Any further objection to the abstract is respectfully traversed.

The disclosure is objected to, with the specification utilizing what the Examiner terms a not widely accepted symbol for inequality. Applicants have amended the specification and claims where necessary to utilize the more accepted symbol for equality and/or inequality, as suggested by the Examiner.

Claims 1, 3, 19, 20, 22, 23, 25, 29, 31, 33 and 35 have been objected to with respect to the same use of the not widely accepted symbol for inequality. Applicants have amended these claims as suggested by the Examiner. Any further objection to claims 1, 3, 19, 20, 22, 23, 25, 29, 31, 33 and 35 is respectfully traversed.

Claims 1-3, 5, 10, 13, 14, 16-20, 22, 23 and 25-36 stand rejected under 35 USC §102 as being anticipated by Cotteverte (U.S. Patent 6,542,682).

It is noted that Applicants' originally submitted claim 1 included the requirement that the refractive index of the rods, n_{rods} , is greater than or equal to the refractive index of the cladding, n_{cladding} . The Examiner provides no indication of where the claimed subject matter exists in the cited prior art reference.

For example, the Examiner states on page 4, line 6 of the Official Action that the Cotteverte reference teaches $n_{\text{rods}} \geq n_{\text{cladding}}$ interrelationship which is specified in Applicants' independent claim 1. The Examiner suggests that this is taught in Cotteverte at column 8, lines 1-8, 29-37, 41-44 and 55-56. As set out in Applicants' claim 1, n_{rods} is the refractive index of the sub-regions in the core layer and n_{cladding} is the refractive index of the cladding. Nowhere in the cited portions at column 8 of the Cotteverte reference is there any disclosure that the refractive index of the core sub-regions is greater than or equal to the refractive index of the cladding.

The Examiner's suggestion that the cladding and buffer layers in Cotteverte are air, i.e., refractive index of 1, somehow suggest Applicants' claimed combination of structures. The Examiner's suggestion that Cotteverte teaches "the core layer may be a free-standing layer of silicon, and the cladding layers may be air" does not suggest or teach that the core sub-regions (n_{rods}) has a refractive index greater than the refractive index of the cladding layer, n_{cladding} , which would be 1. The Examiner simply fails to identify where Cotteverte teaches the claimed interrelationship between refractive index of the core, n_{core} , the array of sub-regions within the core layer, n_{rods} , and the refractive index of the cladding, n_{cladding} .

However, to clarify Applicants' claimed interrelationship, independent claim 1 has been amended to confirm that the "cladding layer sub-regions are contiguous with said core layer sub-regions." Similar amendments have been made in the other independent claims.

Nowhere in the Official Action does the Examiner point out where Cotteverte (or any other prior art reference for that matter) teaches Applicants' claimed interrelationships of a core layer having an array of sub-regions, where the sub-regions have a refractive index less than the core region refractive index and where there are sub-regions in the cladding layer which are contiguous with the core layer sub-regions.

Should the Examiner contend that the claimed structure is disclosed somewhere in Cotteverte, he is respectfully requested to provide a detailed indication of the column and line number and identify what the refractive indices are in Cotteverte which fulfill the requirements of Applicants' independent claims.

Absent any disclosure in Cotteverte of the subject matter of Applicants' claims 1, 3, 19, 20, 22, 23, 25, 29, 31, 33 and 35, there is simply no support for a rejection under 35 USC §102 and any further rejection thereunder is respectfully traversed.

Claims 4, 21 and 24 stand rejected under 35 USC §103 as unpatentable over Cotteverte in view of Koops (U.S. Patent 6,075,915). Inasmuch as these claims depend from independent claims discussed above, the above arguments distinguishing the independent claims over the Cotteverte reference are herein incorporated by reference. The Examiner does not allege in the Official Action, beginning on page 6, that Koops teaches the missing structural interrelationships set out in Applicants' independent claims. Accordingly, neither Cotteverte nor Koops disclose the subject matter set out in Applicants' independent claims and therefore claims dependent

therefrom. Accordingly, there is no support for any *prima facie* case of obviousness of claims 4, 21 and 24 over the Cotteverte/Koops combination.

Claims 7, 8, 11 and 12 stand rejected under 35 USC §103 as unpatentable over Cotteverte in view of Yamada (U.S. Patent 6,631,236). Inasmuch as these claims depend from independent claims discussed above, the above arguments distinguishing the independent claims over the Cotteverte reference are herein incorporated by reference. The Examiner does not allege in the Official Action that Yamada teaches the missing structural interrelationships set out in Applicants' independent claims. Accordingly, neither Cotteverte nor Yamada disclose the subject matter set out in Applicants' independent claims and therefore claims dependent therefrom. Accordingly, there is no support for any *prima facie* case of obviousness of claims 7, 8, 11 and 12 over the Cotteverte/Yamada combination.

Claims 6 and 9 stand rejected under 35 USC §103 as unpatentable over Cotteverte in view of Reichert (U.S. Patent 5,961,924). Inasmuch as these claims depend from independent claims discussed above, the above arguments distinguishing the independent claims over the Cotteverte reference are herein incorporated by reference. The Examiner does not allege in the Official Action that Reichert teaches the missing structural interrelationships set out in Applicants' independent claims. Accordingly, neither Cotteverte nor Reichert disclose the subject matter set out in Applicants' independent claims and therefore claims dependent therefrom. Accordingly, there is no support for any *prima facie* case of obviousness of claims 6 and 9 over the Cotteverte/Reichert combination.

Claim 15 stands rejected under 35 USC §103 as unpatentable over Cotteverte in view of Yamada and further in view of Reichert. Inasmuch as this claim depend from an independent

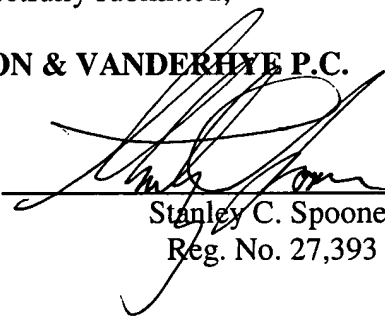
claim discussed above, the above arguments distinguishing the independent claims over the Cotteverte reference are herein incorporated by reference. The Examiner does not allege in the Official Action that Yamada or Reichert teaches the missing structural interrelationships set out in Applicants' independent claims. Accordingly, none of Cotteverte, Yamada or Reichert disclose the subject matter set out in Applicants' independent claims and therefore claims dependent therefrom. Accordingly, there is no support for any *prima facie* case of obviousness of claim 15 over the Cotteverte/Yamada/Reichert combination.

Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that claims 1-36 are in condition for allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, he is respectfully requested to contact Applicants' undersigned representative.

Respectfully submitted,

NIXON & VANDERHYTE P.C.

By: _____


Stanley C. Spooner
Reg. No. 27,393

SCS:kmm
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100